

CLAIMS

1. Method to manufacture a metallized paper which comprises the stages of:
  - 5 (i) curtain coating of a first aqueous film-forming composition on a substrate;
  - (ii) metallizing the coated substrate; and
  - (iii) curtain coating of a second aqueous film-forming composition on said metallized10 substrate,  
characterized in that said first and second aqueous film-forming composition comprises a first emulsion polymer and/or second colloidal dispersion polymer.
- 15 2. Method according to claim 1, wherein said first and/or second aqueous film-forming composition has a low-shear viscosity, measured in a Brookfield viscometer at 60 rpm and 20°C, between 60 and 220 mPas and/or a high-shear viscosity, measured in a Haake viscometer at 37,750  
20 s<sup>-1</sup> and 20°C, between 2.3 and 35 mPas.
3. Method according to claim 1, wherein said first and/or second aqueous film-forming composition has a low-shear viscosity, measured in a Brookfield viscometer at  
25 60 rpm and 20°C, between 100 and 180 mPas and/or a high-shear viscosity, measured in a Haake viscometer at 37,750 s<sup>-1</sup> and 20°C, between 7 and 20 mPas.
4. Method according to claim 1, wherein the first  
30 and/or second aqueous film-forming composition has a static surface tension, measured by a ring tensiometer, between 25 and 40 dyn/cm, preferably between 32 and 37 dyn/cm.
- 35 5. Method according to claim 1, wherein said first

polymer is selected from an acrylic polymer, an acrylic-styrene polymer, a modified acrylic polymer and their mixtures.

5     6. Method according to claim 1, wherein said second colloidal dispersion polymer is selected from an acrylic polymer, a modified acrylic polymer and their mixtures.

10     7. Method according to claim 1, wherein said first and/or second aqueous film-forming composition comprises a first emulsion polymer in a quantity between 10% and 70% by dry weight of said first polymer in relation to the total dry weight of resin and a second colloidal dispersion polymer in a quantity between 30% and 90% by  
15     dry weight of said second polymer in relation to the total dry weight of resin.

20     8. Method according to claim 1, wherein said first and/or second aqueous film-forming composition further comprises an additive selected from thickeners, surfactants, waxes, pigments, anti-foam agents, dispersants, levelling agents and their mixtures.

25     9. Method according to claim 8, wherein said first and/or second aqueous film-forming composition comprises a thickener in a quantity between 2% and 5% by dry weight of thickener, in relation to the total dry weight of resin.

30     10. Method according to claim 8, wherein said thickener is selected from the group formed by an acrylic thickener, a polyurethane thickener, an acrylic-acrylamide thickener, a cellulosic thickener and their mixtures.

11. Method according to claim 8, wherein said first and/or second aqueous film-forming composition comprises a surfactant in a quantity between 0.5% and 3% by dry weight of surfactant in relation to the total dry weight of resin.

12. Method according to claim 8, wherein said surfactant is selected from the group formed by an anionic surfactant, a non-ionic surfactant and their mixtures.

13. A composition which comprises a first emulsion polymer and/or a second colloidal dispersion polymer and has, at least, one of the following properties:

(i) low-shear viscosity, measured in a Brookfield viscometer at 60 rpm and 20°C, between 60 and 220 mPas, preferably between 100 and 180 mPas;

(ii) high-shear viscosity, measured in a Haake viscometer at 37,750<sup>s<sup>-1</sup></sup> and 20°C, between 2.3 and 35 mPas, preferably between 7 and 20 mPas; or

(iii) static surface tension, measured by an ring tensiometer between 20 and 40 dyn/cm, preferably between 32 and 37 dyn/cm.

14. Composition according to claim 13, which further comprises an additive selected from thickeners, surfactants, waxes, pigments, anti-foam agents, dispersants, levelling agents and their mixtures

15. Composition according to claim 14, wherein the thickener is selected from the group formed by an acrylic thickener, a polyurethane thickener, an acrylic-acrylamide thickener, a cellulosic thickener and their mixtures.

16. Composition according to claim 14, wherein said surfactant is selected from the group formed by an anionic surfactant, a non-ionic surfactant and their mixtures.